

COSI - SMEX



Selected by NASA for the SMEX program

**Launch: September 2025
(no later than October 15, 2025 with 1 month/year reserve).**

Duration: 26 months (1 month checkout + 2 year science mission + 1 month decommissioning).

PI John Tomsick (UC Berkeley)

**Presently in phase-B.
Phase-C planned for 1/1/2023-june 2024**

Institutions involved:

U. C. Berkeley
Naval Research Laboratory
Clemson Univ.
GSFC
ASI (Italy)
INAF (Italy)
IRAP (France)
Tokio and Nagoya Univ.

<https://cosi.ssl.berkeley.edu>

INAF/italian team

4 INAF researchers (with HW, SW and scientific expertise) are members of the COSI Team:

Andrea Bulgarelli: MM, data pipeline, real-time analysis

Giancarlo Ghirlanda: MM, GRB, transients

Valentina Fioretti: simulations, data pipeline

Fabrizio Tavecchio: polarization, AGNs, MM.

Working groups have been defined recently

Scientific Working Groups

FT: Co-lead of extragalactic and DM SWGs

Developer team

VF and AB: leaders of two sub-WPs (instruments, real time)

Extended INAF team (in progress):

In total 20 INAF researchers (building on the experience gained with AGILE, eASTROGAM) are involved for a total of 0.8 FTE/yr (2022-2024). Other researchers recently added.

Possibile interessati:

- gruppo GW e CR del GSSI/INFN (Branchesi, Evoli),
- UniPD/INFN (Prandini, Doro)
- UniTS/INFN (Longo).

Discussions with ASI ongoing (tavolo paritetico)

INAF contribution



Work in Progress

Currently planned:

Pipeline for real-time analysis (led by AB):

development of a simulation tools for transients (GRB, SGR, AGN)

Instrument simulations (led by VF):

detector performances

Contribution to data challenge(s) (GG, FT):

input models for GRB, AGNs, polarization